

This Week in the Journal

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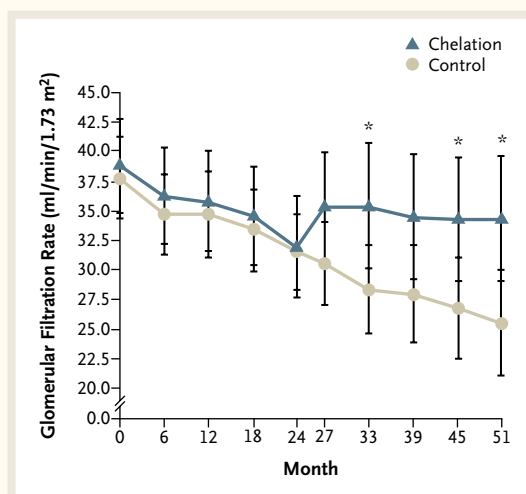
ORIGINAL ARTICLES

Environmental Lead Exposure and Progression of Chronic Renal Insufficiency

Low-level environmental lead exposure has been associated with an age-related decrease in renal function, yet the relation between cause and effect is unknown. This study measured renal function, blood lead levels, and body lead burden in 202 patients with mild-to-moderate renal insufficiency over a 24-month observation period. Then 64 of these patients, who had had a mild increase in body lead burden during the observational study, received either chelation therapy with calcium disodium EDTA or placebo for 3 months, followed by repeated chelation therapy, as needed, or placebo for an additional 24 months. The progression of renal failure was slower in patients who received chelation therapy.

Low-level environmental lead exposure may have a role in the decrease in renal function observed during aging. Chelation therapy may retard the progression of renal insufficiency.

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Serum Retinol and the Risk of Fracture

High vitamin A intake has been associated with increased bone fragility, but no biologic marker has been examined. Serum retinol and beta carotene were measured in blood samples banked at the start of this longitudinal cohort study involving 2322 men who were followed for up to 30 years. Fractures occurred in 266 men; Cox regression analysis was used to determine the risk of fracture according to the serum retinol level. The risk was elevated among men with the highest retinol levels. The beta carotene level was not associated with the risk of fracture.

These data suggest that current levels of dietary vitamin A supplementation may need to be reassessed.

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Left Ventricular Outflow Tract Obstruction in Hypertrophic Cardiomyopathy

The effect of obstructed left ventricular outflow due to a hypertrophied interventricular septum is controversial. In this large study of patients with hypertrophic cardiomyopathy, an outflow gradient of at least 30 mm Hg at rest predicted an increased risk of progression to severe heart failure or death from cardiovascular causes.

The authors are cautious about the implications of their data for therapy. Clinical judgment is required in deciding whether to reduce outflow tract obstruction in individual patients, with consideration given to the level of symptoms, the degree of obstruction, and the potential risks entailed by therapies such as myectomy and septal ablation.

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THIS WEEK IN THE JOURNAL

ORIGINAL ARTICLE

Comparison of Magnesium Sulfate and Nimodipine for the Prevention of Eclampsia

In this randomized, unblinded, multicenter study, magnesium sulfate proved more effective than nimodipine, a cerebral vasodilator, in preventing seizures in women with severe preeclampsia. The risk of seizure was three times as high in the group given nimodipine as in the group given magnesium sulfate.

These results reinforce the use of magnesium sulfate as the standard of care in preventing eclampsia in women with severe preeclampsia.

SEE PAGE 304; PERSPECTIVE, PAGE 275

BRIEF REPORT

Ectopic Luteinizing Hormone Secretion and Anovulation

A 40-year-old woman referred for evaluation of markedly elevated levels of luteinizing hormone—identified in the course of an infertility workup—is the subject of this Brief Report. Investigation showed ectopic secretion of luteinizing hormone from a neuroendocrine pancreatic tumor, the removal of which led to the normalization of luteinizing hormone levels and the return of ovulation.

The possibility of an adrenal or pancreatic tumor should be considered in women with extremely high luteinizing hormone levels.

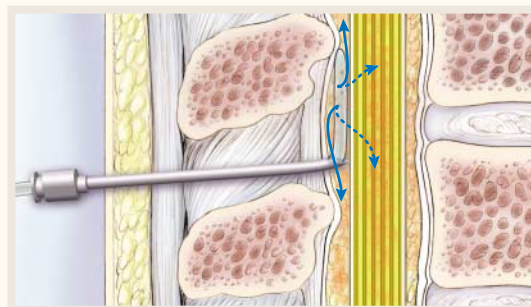
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MEDICAL PROGRESS

Regional Anesthesia and Analgesia for Labor and Delivery

The maternal and fetal effects of analgesia during labor and delivery are issues of concern to patients, anesthesiologists, and obstetrical caregivers. Roughly 60 percent of women in the United States choose epidural or combined spinal–epidural anesthesia during labor. This Medical Progress article reviews current considerations, risks, and benefits of regional analgesia and anesthesia during both vaginal and cesarean deliveries.

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CLINICAL IMPLICATIONS OF BASIC RESEARCH

A Family of WASPs

Mutation of a single X-linked gene, WASP, causes the features of the Wiskott–Aldrich syndrome, an immunodeficiency disorder of T-cells and B-cells. The mutation disables the Wiskott–Aldrich syndrome protein (WASP), a member of a family of proteins that regulate the actin cytoskeleton. Without these proteins, cells can neither maintain their shape nor move. There is recent evidence that certain microorganisms attach themselves to host cells by using members of the WASP family.

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SOUNDING BOARD

Is the Match Illegal?

A class-action lawsuit claiming that “the Match” (the National Resident Matching Program) violates antitrust laws was filed against the Accreditation Council for Graduate Medical Education and several teaching hospitals. The author argues that the Match interferes with the free market and lowers salaries for residents, but the lawsuit may not be successful, given previous court decisions suggesting that antitrust laws apply only to conventional business situations.

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